I. Rejection of Claims 1, 4, 5, 7, 8, 11, 12 and 14 under 35 U.S.C. §103

The Examiner rejected Claims 1, 4, 7, 8, 11 and 14 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,528,513 to Vaitzblit, *et al.* ("Vaitzblit") in view of U.S. Patent No. 6,009,454 to Dummermuth, *et al.* ("Dummermuth"). The Applicants respectfully disagree. Vaitzblit discloses a scheduler for a continuous media file server. Scheduling is performed in a hierarchical manner for isochronous, real-time and general purpose tasks. (Abstract).

Vaitzblit, however, does not teach or suggest cyclicly activating a context corresponding to another background task when a number of instructions executed with respect to a given background equals a dynamically-programmable time slice value. (Claims 1 and 8). Instead, Vaitzblit teaches executing general purpose tasks in a round-robin fashion. Once executed, the general purpose tasks run until blocked or a quantum timer expires. (Column 5, lines 16-25). This differs from the claimed invention that cyclicly activates a context corresponding to another background task when a number of instructions executed with respect to a given background task equals a dynamically-programmable time slice value. (Claims 1 and 8). In other words, the claimed invention switches to another background task based on a number of instructions executed compared to an amount of time as taught by Vaitzblit. More specifically, the claimed invention switches to another background task when the number of instructions equals a time slice value that is dynamically programmable. (Claims 1 and 8).

Dummermuth discloses a multi-tasking operating system for real-time control of industrial processes. (Abstract). Multi-tasking is provided by recognizing that both ladder-type and state-type programs can be considered as simply a collection of individual instructions linked together by an

implicit pointer list. At the conclusion of any instructions, a pointer may be developed to a single next instruction. (Column 2, lines 48-53).

Dummermuth, however, also does not teach or suggest cyclicly activating a context corresponding to another background task when a number of instructions executed with respect to a given background equals a dynamically-programmable time slice value. (Claims 1 and 8). Instead, Dummermuth teaches a multi-tasking operation that "switches between tasks after a predetermined number of instructions by making the execution of each instruction explicit." (Column 7, lines 23-26). This differs from the present invention where a slice value is dynamically-programmable instead of predetermined. Dummermuth, therefore, fails to cure the deficiencies of Vaitzblit.

Furthermore, the combination of Vaitzblit and Dummermuth is improper. One skilled in the art would not be motivated to combine Vaitzblit with Dummermuth to arrive at the claimed invention because Vaitzblit is directed to a scheduler for a continuous media file server and Dummermuth is directed to a multi-tasking operating system for real-time control of industrial processes.

Since neither Vaitzblit of Dummermuth, individually or in combination, teach or suggest each and every element of independent Claims 1 and 8, the Examiner cannot establish a *prima facie* case of obviousness of Claims 1 and 8 and Claims dependent thereon. Accordingly, the Applicants respectfully traverse the Examiner's rejection of Claims 1, 4, 5, 7, 8, 11, 12 and 14 under 35 U.S.C. §103(a) and request the Examiner withdraw the rejection with respect to these claims.

II. Rejection of Claims 2, 6, 9 and 13 under 35 U.S.C. §103

The Examiner rejected Claims 2, 6, 9 and 13 under 35 U.S.C. §103(a) as being unpatentable over Vaitzblit and Dummermuth in view of U.S. Patent No. 6,085,218 to Carmon. As discussed above, neither Vaitzblit nor Dummermuth, individually or in combination, teach or suggest each and every element of independent Claims 1 and 8. Furthermore, Carmon does not cure the deficiencies of Vaitzblit and Dummermuth. Instead, Carmon is directed to monitoring a multi-task system by detecting overrun of any task beyond a declared maximum processor cycle limit for the task. (Abstract). Since the Examiner did not establish a *prima facie* case of obviousness of independent Claims 1 and 8, and Carmon does not cure the deficiencies of Vaitzblit and Dummermuth, then the Examiner cannot establish a case of obviousness of dependent Claims 2, 6, 9 and 13. Accordingly, the Applicants respectfully traverse the Examiner's rejection of Claims 2, 6, 9 and 13 under 35 U.S.C. §103(a) and request the Examiner withdraw the rejection with respect to these claims.

III. Rejection of Claims 3 and 10 under 35 U.S.C. §103

The Examiner rejected Claims 3 and 10 under 35 U.S.C. §103(a) as being unpatentable over Vaitzblit and Dummermuth in view of U.S. Patent No. 5,239,652 to Seibert, *et al.* ("Seibert"). As discussed above, neither Vaitzblit nor Dummermuth, individually or in combination, teach or suggest each and every element of independent Claims 1 and 8. Furthermore, Seibert does not cure the deficiencies of Vaitzblit and Dummermuth. Instead, Seibert is directed to reducing the power consumption of a computer by determining when the central processing unit is not actively processing and generating a power-off signal to a control logic circuit. (Abstract). Since the

Examiner did not establish a *prima facie* case of obviousness of independent Claims 1 and 8, and Seibert does not cure the deficiencies of Vaitzblit and Dummermuth, then the Examiner cannot establish a case of obviousness of dependent Claims 3 and 10. Accordingly, the Applicants respectfully traverse the Examiner's rejection of Claims 3 and 10 under 35 U.S.C. §103(a) and request the Examiner withdraw the rejection with respect to these claims.

IV. Rejection of Claims 15, 18, 19 and 21-22 under 35 U.S.C. §103

The Examiner rejected Claims 15, 18, 19 and 21-22 under 35 U.S.C. §103(a) as being unpatentable over Vaitzblit and Dummermuth in further view of U.S. Patent No. 5,713,038 to Motomura. As discussed above with respect to independent Claims 1 and 8, Vaitzblit and Dummermuth do not teach or suggest switching between tasks using a dynamically-programmable time slice value as claimed in independent Claim 15. Furthermore, Motomura does not cure the deficiencies of Vaitzblit and Dummermuth. Instead, Motomura is directed to a microprocessor that has a register file which allows a higher speed, more flexible, context switching as compared to conventional microprocessors. (Column 3, lines 15-17).

Since Vaitzblit and Dummermuth do not teach each and every element of independent Claim 15 and Motomura does not cure its deficiencies, then the Examiner can not establish a *prima facie* case of obviousness of independent Claim 15 and Claims dependent thereon. Accordingly, the Applicants respectfully traverse the Examiner's rejection of Claims 15, 18, 19 and 21-22 under 35 U.S.C. §103(a) and request the Examiner withdraw the rejection with respect to these claims. Additionally, a person having ordinary skill in the art could not have arrived at the processor claimed in Claim 15 by combining the teachings of Vaitzblit, Dummermut and Motomura since

neither Vaitzblit, Dummermut or Motomura teach or suggest switching between tasks using a dynamically-programmable time slice value.

V. Rejection of Claims 16, 17 and 20 under 35 U.S.C. §103

The Examiner rejected Claim 17 under 35 U.S.C. §103(a) as being unpatentable over Vaitzblit, Dummermuth and Motomura and further in view of Seibert. In addition, the Examiner rejected Claims 16 and 20 under 35 U.S.C. §103(a) as being unpatentable over Vaitzblit, Dummermuth and Motomura and in further view of Carmon. As stated above, Vaitzblit and Dummermuth do not teach or suggest each and every element of independent Claim 15. Furthermore, as stated above with respect to previous rejections, neither Motomura, Seibert or Carmon cure the deficiencies of Vaitzblit and Dummermuth. No combination, therefore, of Motomura, Seibert, Vaitzblit, Carmon or Dummermuth teaches or suggests each and every element of Claims 16, 17 and 20. The Examiner, nevertheless, cannot establish a *prima facie* case of obviousness with respect to Claims 16, 17 and 20. Accordingly, the Applicants respectfully traverse the Examiner's rejection of Claims 16, 17 and 20 under 35 U.S.C. §103(a) and request the Examiner withdraw the rejection with respect to these claims.

VI. Conclusion

In view of the foregoing remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-22. The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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